

REMARKS

Claims 1-15 are all the claims pending in the application. By this Amendment, Applicant editorially amends claims 1-9. The amendments to claims 1-9 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claims 1-9 were not made for reasons of patentability but to conform the claims to the U.S. practice.

In addition, Applicant adds claims 10-15. No new matter is being added. Claims 10-15 are clearly supported by the originally filed specification, *e.g.*, pages 4-6.

Preliminary Matters

Applicant thanks the Examiner for initialing the references listed on Form PTO-1449 submitted with the Information Disclosure Statement filed on December 18, 2000 and for entering the preliminary Amendment filed on December 18, 2000.

The Examiner, however, failed to acknowledge the claim for priority under 35 U.S.C. §119(e), as well as the receipt of a certified copy of the priority document filed on March 21, 2001. Therefore, Applicant respectfully requests the Examiner to check the appropriate boxes on the Form PTO-326 indicating that the claim for priority is acknowledged and that the certified copy of the priority document has been received.

Summary of the Office Action

The Examiner objected to the drawings and the specification. In addition, the Examiner rejected claims 3-5, 8, and 9 under 35 U.S.C. § 112, second paragraph and claims 1, 2, 4, and 6-9 under 35 U.S.C. § 102(e) and claims 3 and 5 under 35 U.S.C. § 103(a).

Drawings

The Examiner has objected to the drawings because the reference symbols “NG” and “I₀” shown in Fig. 1 are not described in the Specification. The drawings have been amended to remedy this situation. A replacement drawing without the objected reference symbols is accompanying this response. As a result, the Examiner is respectfully requested to acknowledge receipt and indicate approval of the drawing corrections in the next Patent Office paper.

Specification

The Examiner objected to the Abstract of Disclosure for including the term “said”. Applicant herein amends the Abstract to exclude the term. In view of this amendment to the specification, Applicant respectfully requests the Examiner now to withdraw this objection.

Claim Rejections under 35 U.S.C. § 112

The Examiner rejected claims 3-5 and 8 under section 112, second paragraph for improper antecedent basis. Independently, Applicant has amended the claims for improved conformity with the U.S. practice. This coincidentally overcame all of the Examiner’s problems with the claims.

Claim Rejections under 35 U.S.C. § 102(e)

Claims 1, 2, 4, and 6-9 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,657,961 to Lauffenburger et al. (hereinafter “Lauffenburger”). Applicant respectfully traverses the rejection and respectfully requests the Examiner to reconsider this rejection in view of the comments, which follow.

To be an “anticipation” rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant’s claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

Of the rejected claims only claims 1 and 2 are independent. Independent claim 1 is a unique combination of features, not disclosed by the prior art reference cited by the Examiner.

Claim 1 requires:

wherein only said data sink reports to said
data source on said network status
information of said communications network
in its neighbourhood

The Examiner asserts that claim 1 is directed to a network status reporting method and is anticipated by Lauffenburger.

Specifically, the Examiner asserts that Lauffenburger’s method of specifying the desired data flow rates based on the detected conditions at the receiving station is equivalent to having only the data sink reporting the network status information of said communications network in its neighbourhood to the data source as set forth in claim 1 (see pages 3-4 of the Office Action).

Applicant respectfully disagrees. Applicant has carefully studied Lauffenburger's discussion of specifying the desired data flow rates based on the detected conditions of the receiving station, which is not similar to having the data sink report to the data source the status of the communication network in its neighborhood, as set forth in claim 1.

Lauffenburger teaches controlling the data flow in an available bit rate ATM network (*see* Abstract). Lauffenburger addresses the problem that arises when the network has the capacity to handle the data flow rate, but a receiving end station has a temporary low receive buffer capacity condition, such that it cannot process the incoming data at that flow rate (col. 4, lines 13 to 17). In other words, Lauffenburger addresses the receiver-controlled mechanism to allow the receiving end station to fully and efficiently regulate the data flow (col. 4, lines 17 to 20).

In particular, Lauffenburger teaches a transmitting end station 12 which sends RM cells, a switch 16 and a receiving end station 14 that receives the RM cells and sends backward RM cells (Fig. 1; col. 3, lines 43 to 61). The backward RM cells can be unsolicited by the transmitting station 12. In other words, the backward RM cells may be sent by the receiving station 14 upon detection of the congestion condition at the receiving station (col. 5; lines 22 to 43). The receiving station 14 is capable of sending the desired flow rates based on its operating conditions (col. 4, line 59 to col. 5, line 6).

Lauffenburger, however, addresses the adjustment of the transmission rate based on the receiving station's operating conditions. Lauffenburger, for example, teaches detecting when the buffer capacity of the receiving station is low and based on that generate requests for change in

the data flow rates. In other words, Lauffenburger teaches sending requests for a change in the transmission rate based on the congestion conditions at the receiving station. Lauffenburger fails to disclose sending reports on the status of the communication network in its neighborhood.

That is, Lauffenburger teaches sending requests for a change in the transmission rate and not sending reports on the status of the communications network. In short, in Lauffenburger, the receiving station determines the desirable transmission rate and requests this rate from the transmitting station, as opposed to simply reporting the actual conditions and having the transmitting station select and adjust the rate based on the received report. Similarly, Lauffenburger focuses on the conditions at the receiving station, *e.g.*, buffer capacity, and the reference fails to disclose reporting on the status of the communications network in its neighborhood.

Therefore, “wherein only said data sink is able to report said network status information of said communications network in its neighbourhood to said data source,” as set forth in claim 1 is not disclosed by Lauffenburger, which lacks having the receiving station report status information of the communication network in its neighbourhood. For at least these exemplary reasons, independent claim 1 is patentably distinguishable from Lauffenburger and it is appropriate and necessary for the Examiner thus to withdraw this rejection of independent claim 1.

Independent claim 2 contains features that are similar to the features argued above with respect to claim 1, and those arguments are respectfully submitted to apply with equal force here.

For analogous reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 2 and its dependent claims 4 and 6-9.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 3 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lauffenburger in view of U.S. Patent No. 6,404,861 to Cohen et al. (hereinafter "Cohen"). Applicant respectfully traverses this rejection with respect to the dependent upon claim 2, claims 3 and 5. Applicant has already demonstrated that Lauffenburger does not meet all the requirements of independent claim 2. Cohen is relied upon only for its teaching of a line terminator and a link between the network termination and the line termination (see page 7 of the Office Action). As such Cohen clearly fails to cure the deficient teachings of Lauffenburger.

In addition, one of ordinary skill in the art would not have been motivated to combine the references in the manner suggested by the Examiner. In particular, the Examiner alleges that one of ordinary skill in the art would have been motivated to combine the references to obtain the DSL technology (see page 7 of the Office Action). Applicant respectfully disagrees.

Cohen relates to a DSL modem exchanging management information to a terminating multiplexer using a proprietary protocol, thus enabling reliable, fast access to networking resources (*see* Abstract). In particular, Cohen teaches providing high speed transmission of multi-media information. Because the outside plant need not be revamped, the telephone companies (Telcos) can readily implement the DSL services. The DSL modem 220 acts as the network access device to the communication facility 240. A DSL multiplexer 252 provides a

termination of the DSL modem connection within a communications facility 240 (col. 6, lines 50 to 60).

Cohen, however, teaches transmitting management information to obtain higher bandwidth but in the ATM network, conventional ABR/ER is retained (col. 7, line 56 to col. 8, line 5). In other words, Cohen is well aware of the ABR technique and yet it was not extended to encompass the DSL line. Cohen only teaches conventional management using ABR/ER over the ATM and managing the bandwidth between the modem and the multiplexer in the DSL network separately. In Cohen, the rate of transmission is managed separately in each network.

One of ordinary skill in the art would not have been motivated to combine the references in the manner suggested by the Examiner because one of ordinary skill in the art would not have known how to integrate the management of the two networks. Cohen focuses on the DSL network and Lauffenburger addresses only one ATM network. In short, one of ordinary skill in the art confronted with Lauffenburger's management of the ATM network would not have turned to a reference like Cohen that is concerned with transmitting multimedia information over the DSL line and with better management of the DSL line for improved reliability.

Clearly, Cohen does not compensate for the above-identified deficiencies of Lauffenburger. Together, the combined teachings of these references would not have (and could not have) led the artisan of ordinary skill to have achieved the subject matter of claim 2. Since claims 3 and 5 are dependent upon claim 2, they are be patentable at least by virtue of their dependency.

New Claims

In order to provide more varied protection, Applicant adds claims 10-15. Claim 10 is clearly patentable over the prior art references cited by the Examiner at least by virtue of its requirement of “wherein the data source adapts the transmission rate on the basis of a network status reported by at least one of the line termination element and the network termination element, and wherein the network status is determined based on a quality of signal of the first network only.” Claims 11-14 are patentable at least by virtue of their dependency on claim 10.

Claim 15 is patentable over the prior art references cited by the Examiner at least by virtue of its requirement of “only said data sink reports to said data source on the status of the segment of the communications network near the data sink, and none of said at least one intermediate network node reports to said data source on said network status of a segment of said communications network near said at least one intermediate network.”

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
U.S. Application No.: 09/737,471

Attorney No.: Q62150

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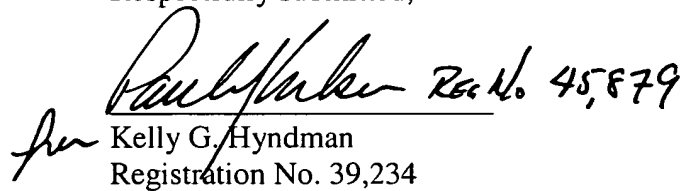
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Date: August 19, 2004